

2022
brand book



QUANTUM

PORCELAIN TILES

the future is
quantum

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Q U A N T U M

P O R C E L A I N T I L E S

Founded in 2006 by Sheikh Khaled Bagedo, Arabian Ceramic is one of the largest producers in the Middle East and has a daily production of 50 000 sq.m.

For more than 16 years, designing and manufacturing floor and wall coverings for public, commercial, and residential settings, Arabian ceramics holds one of the largest share in the middle East market and its strategy is based on trust, partnership and the ability to shape the chain of activity leading from suppliers to end customers.

Quantum Porcelain, the company's new brand is dedicated to the production of porcelain tiles with increased properties, and even more exquisite designs, for floor & wall coverings and outdoor projects.

Produced with the latest technology, refined raw materials and outstanding features, represents the new generation of innovative surface materials.

The extensive range of porcelain surfaces for interiors, exteriors, and decorative tiles meet all the needs of developers, architects and end-users all over the world.

declaration of intent



Quality, for us means quality of product, environmental sustainability and respect for workers' safety, priorities that have enabled the company to certify its systems and products with the International Standard ISO 13006 and SASO.

Health, Safety and Welfare of its employees and others affected by its operations have equal importance to quality, cost, production and morale. Our policies has been implemented with the active co-operation of all management, employees, contractors and visitors, who have a duty to offer all necessary assistance to ensure the Health and Safety of themselves and others.

We regard as our major responsibility to manage and develop our activity in a sustainable way.



sustainable production.

Well-planned use of technologies, procedures and resources, committed to a world that consumes less raw materials, and use these resources in a conscientious way by minimising waste.

eco-innovation.

Product development practices leading to sustainability by reducing any environmental impacts throughout the entire life cycle, taking also into account functionality, quality, safety, cost, manufacturability, ergonomics and aesthetics.



environmental responsibility.

Reduce-reuse-recycle, are they guide lines of our environmental policy. From the control of air emissions and energy consumption to the recycling of industrial waste, in order to protect the world in which we live, to ensure the lives of future generations.

social responsibility.

Supporting issues that affect society, such as advocating for child labor laws, purchasing fair trade products, and applying environmental principals. Following ethic policies, integrity and honesty ensuring the well-being of the entire organization.





brand guide

www.quantum-tiles.com

quantum products

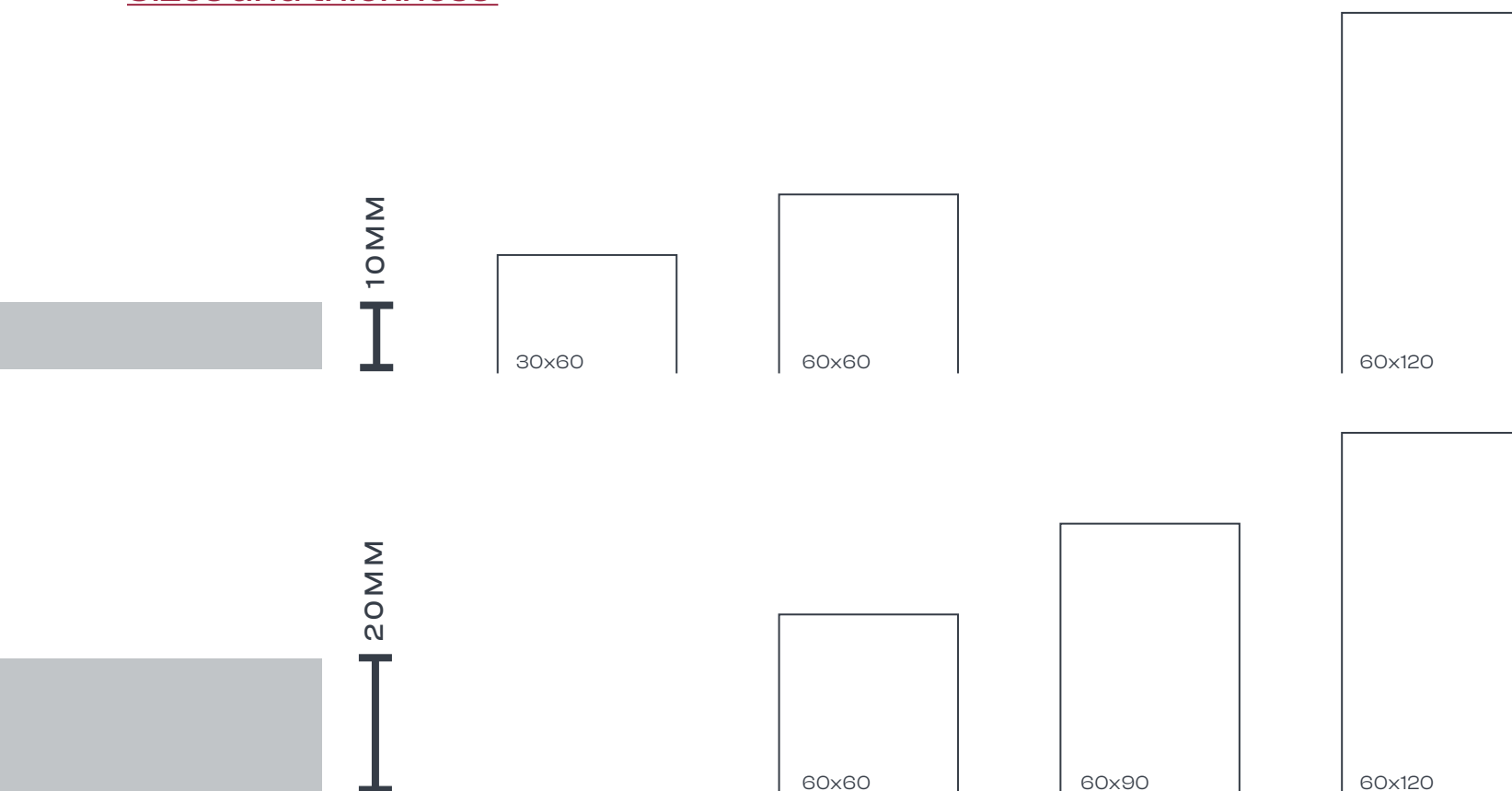


Porcelain is a ceramic material characterised by its high degree of compactness and low water absorption - it is precisely from this factor that its most important quality is derived: high resistance to impacts and stresses, and therefore wear, which makes it particularly suitable as a material for facades and as flooring in high-traffic areas.

They are harder, therefore more durable, than ceramic tiles. But this doesn't mean that ceramic is not as good! This means, that depending on the requirements one might be a little more advantageous than the other.

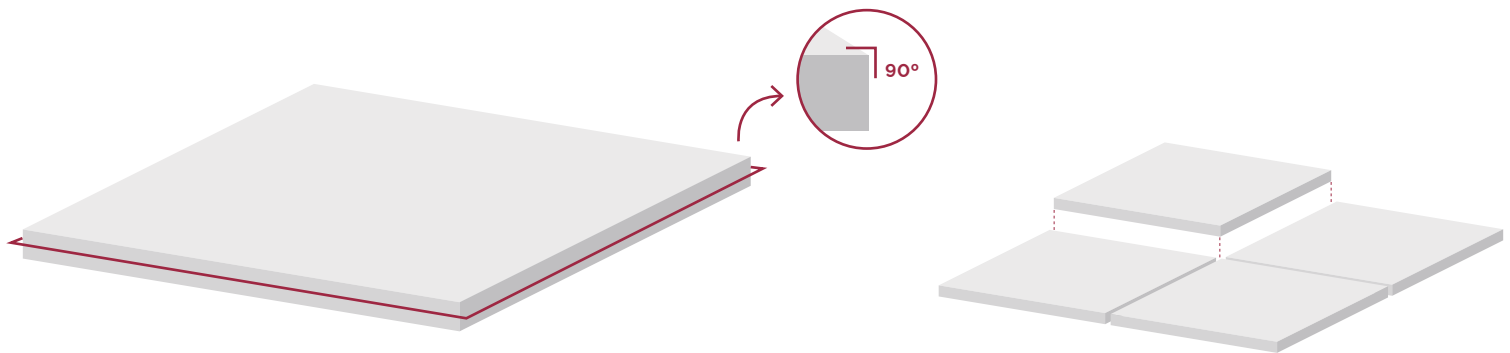
Depending on how the space is meant to be used, porcelain or ceramic tiles may suit the project better.

Sizes and thickness



Edges

RECTIFIED: All Tiles are cut/ground on all four sides after the firing stage to maintain uniformity on the length, width, straightness of sides and rectangularity/squareness.



Surface Structure



PLAIN: Flat punch has been used for the production which means flat surface of the tile. No relief effects are felt touching the surface.



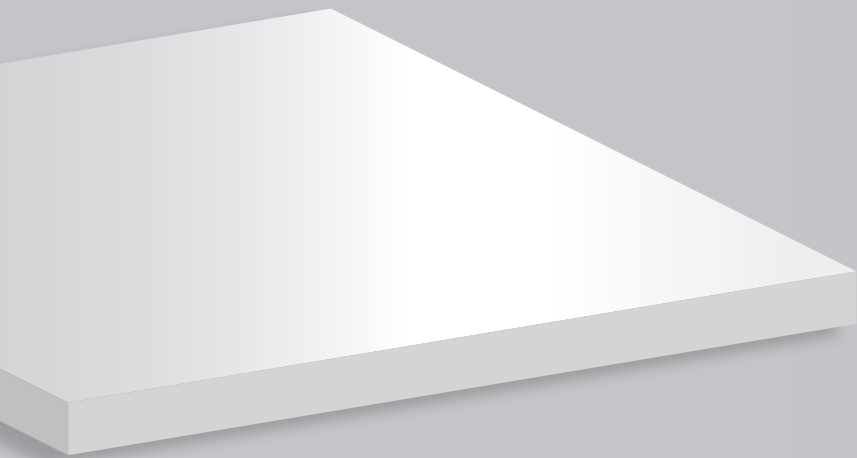
LIGHT TEXTURE: A structured steel punch has been used to mimic natural materials. This effect is normally clearly visible catching a light reflection on the surface of the tiles.

Finishings



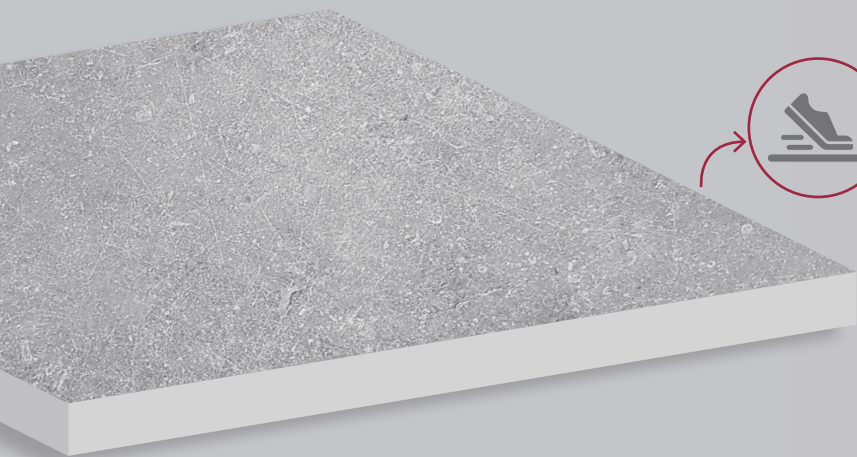
MATT

Glazed Tiles that reflects so little light that no shine is noticeable, creating an uniform appearance.



SATIN MATT

Glazed tiles with a hint of shine creating a look described as velvety.



SPECIAL EFFECTS

Glazed tiles with special digital effects that mimic the natural materials and add exquisite textures.

ANTISLIP MATT

Glazed tiles with slip resistance, developed to prevent slips or to be resistant to slipping. R value from 11 and above are considered anti slip materials.



characteristics and advantages



WIDE RANGE OF COLOURS, SIZES, THICKNESSES AND FINISHES

Thanks to the technical-aesthetic features of the material there is such a wide variety as to make this product extremely versatile and easy to coordinate.



ACID RESISTANT AND STAIN RESISTANT

Resistant to the most common acids, oil, coffee do not leave irremovable marks and perfums, creams or nail varnish do not stick to the surface, nor stain them. Strong detergents and solvents can even be used without damaging the material.



HIGH STRENGTH

Robust, compact, and extremely durable, porcelain tiles can withstand majority of heavy impact stresses and can even be used in commercial purposes.



RESISTANT TO SCRATCHING AND MECHANICAL DAMAGE

Porcelain tiles have high abrasion resistance and their hardness is about 6-7 on the Mohs scale. They are highly wear resistant and more resistant to abrasion and wear than any natural material or types of flooring.



FIRE RESISTANCE

Porcelain does not burn nor does it produce gas or harmful-toxic fumes, and can help limit flame transfer and movement in the event of a fire.



INDOOR AIR

Carpet, vinyl, and wood flooring materials can cause odours by releasing volatiles into the air. These can be avoided by using porcelain tiles, which, due to the manufacturing process, are free of volatile organic compounds.

The benefits of a unique material.



DURABILITY

Ceramic and porcelain tiles are much more durable than carpet or wood flooring. Properly installed porcelain will serve the owner and his family for a lifetime.



ENVIRONMENTALLY FRIENDLY

It contains no waterproofing chemicals, varnishes or resins and does not give off any gases even when exposed to flames. Unlike some types of natural stone, it does not release Radon or other radioactive gases and it is not polished using lead.



ANTIBACTERIAL

Organic substances and bacteria, which cause allergies and illnesses, cannot build up on Porcelain tiles and strong detergent and disinfectants can be used in this type of tiles.



HEAT AND FROST RESISTANT

Unlike laminated wood, plastics, carpets or materials containing resin, Porcelain tiles aren't damaged by heat and they are frostproof.



STABLE CHROMATICALLY

Colours do not change when exposed to sun, weathering or smog, porcelain tiles are Light-Resistant and Fade-Resistant.



LOW MAINTENANCE

The maintenance of porcelain tiles is painless and does not require any seals for water resistance. It is easy to remove stains from tiles, usually with water and a little detergent (if necessary). Porcelain floor tiles will look great for years to come with little effort.





QUANTUM

PORCELAIN TILES



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quantum extra thickness



The exteriors of private homes, as well as public areas with a large influx of people and road traffic, need to have high resistance flooring, low maintenance and with a high non-slip capacity to be completely safe and functional.

One of the great advantages of the 20 mm porcelain is its inalterability over time. Porcelain floors retain their original appearance over time, in addition to keeping intact its high technical performance, such as sudden changes in temperature, resistance to breakage, resistance to bending, resistance to stains, resistance to chemical products, fire resistance, etc.

20 mm Quantum Porcelain tiles are the ideal solution for outdoor installations.



**High thickness porcelain tiles,
an evolution for innovative floorings!**

FOR THE HOME

- Walkway
- Driveways
- Paths
- Verandas
- Swimming pools
- Courtyards
- Garages
- Stairs

FOR PUBLIC SPACES

- Public services
- Hotels
- Private beaches
- Shops
- F&B shops
- Wellness centres
- Urban design
- Safety passages

the perfect combination between high technical performance and aesthetics

20 mm outdoor quantum porcelain is the product in with the highest technical performance, ideal for flooring in outdoor environments without the risk of breakage and without interrupting the continuity between interior and exterior spaces.

Resistant to frost and thermal shock, has anti-slip characteristics and is easy to clean.



VERSATILE AND MODULAR



EASY TO INSTALL



MATCHING INDOOR OUTDOOR



EASY TO CLEAN















SUPERIOR BREAKING STRENGTH



REMOVABLE AND REUSABLE

technical specifications

GLAZED PORCELAIN TILES. GROUP BLA GL (EN 14411)

	TEST METHODS SASO-ISO-13006	NORMA / STANDARD	MATT /SOFT MATT RECT	ANTI SLIP MATT RECT
ISO 10545-2	Lenght and width	± 0,5%	± 0,3%	± 0,3%
	 Deviation of mean thickness from manufacturing thickness	± 5%	± 5%	± 5%
	Straightness of the sides (sides of the main face)	± 0,5%	± 0,3%	± 0,3%
	Orthogonality	± 0,6%	± 0,5%	± 0,5%
	 Surface flatness	± 0,5%	± 0,4%	± 0,4%
	 Surface quality (% defect-free)	≥ 95%	A Minimum of 95% of the tiles are to be free from visible defects which can be impair the appearance of a major area of tiles	
ISO 10545-3	 Water absorption	< 0,5%	< 0,5%	< 0,5%
ISO 10545-4	 Rupture modulus (N/mm ²)	10 mm Thickness	≥ 2000	
		20 mm Thickness	≥ 1300	
	Bending Strength (N):	≥ 1300	≥ 40	≥ 40
ISO 10545-6	 Resistance to deep abrasion (PEI groups) (b)	PEI groups II - III - IV - V	Min. PEI III	Min. PEI IV
ISO 10545-9	 Resistance to thermal shock	Required	Resistant	Resistant
ISO 10545-8	 Cracking Resistance	Required	Resistant	Resistant
ISO 10545-12	 Resistance to frost	Required	Resistant	Resistant
ISO 10545-13 (A)	Resistance to Acids and High Concentration Bases	The producer declares the classification	Min. Class B	Min. Class B
	 Resistance to low concentrations of acids and alkalis		Min. Class B	Min. Class B
	Resistance to Household Chemicals and Swimming pool water additives		Min. Class A	Min. Class A
ISO 10545-14	 Resistance to staining	Min. Class 3	Min. Class 3	Min. Class 3
BS 7976-2 (C)	 Anti slip resistance (Pendulum test - PTV)	Max R13	The producer declares the classification	Min. PTV 36+
DIN 51130 (D)	Anti slip resistance (Ramp test)	Max R13	The producer declares the classification	Min. R 10

STANDARD PACKING LIST

	THICKNESS (MM)	BOX			PALLET			
		nr pieces	m ² approx.	weight kg	type	nr boxes	m ² approx.	weight kg
30 x 60	10	8	1,44	32	STANDARD	48	34,56	768
60 x 60	10	4	1,44	32	STANDARD	24	34,56	768
60 x 60	20	2	0,72	37,75	EUROPALLET	32	23,04	1208
60 x 120	10	2	1,44	37,75	EUROPALLET	27	38,88	1019
60 x 120	20	1	1,44	37	EUROPALLET	27	38,88	999
60 x 90	20	2	1,62	46	EUROPALLET	27	43,74	1246

NOTES

A) Except hydrofluoric acid.

B) Resistance to abrasion (PEI Groups):

Floor Tiles for light traffic areas. (Equivalent to PEI II)

Floor Tiles for regular traffic areas. (Equivalent to PEI III)

Floor Tiles for areas of considerable traffic. (Equivalent to PEI IV)

Floor Tiles for heavy traffic areas, except for intensively used public places. (Equivalent to PEI V)

C)

FLOORS (PTV) PENDULUM TEST VALUE 4S'	SLIP POTENTIAL
0 - 24	High
25 - 35	Moderate
36 +	Low
75 +	Extremely low

D)

ANTI SLIP RESISTANCE	DIN 51130
R9	6° ≤ angle < 10°
R10	10° ≤ angle < 19°
R11	19° ≤ angle < 27°
R12	27° ≤ angle < 35°
R13	angle ≥ 35°







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application methods

Due to the properties of porcelain tiles they have a large range of applications. They are ideal for both indoor and outdoor use. They are perfect for terraces, walkways and verandas and ensures continuity between interiors and exteriors. It can be driven over and used for swimming pools, solariums and building facades.

Regardless of the chosen brand, product type or size, an on-site inspection should be carried out prior to installation to assess the conditions of the substrates.

PERFECT SUBSTRATE CONDITIONS ARE ESSENTIAL FOR A SUCCESSFUL INSTALLATION!





FLOORS AND WALLS, BOTH INSIDE (IN LIVING ROOMS, KITCHENS, BATHROOMS, BEDROOMS, HALLWAYS) AND OUTSIDE (TERRACES, BALCONIES, PATHWAYS)

PUBLIC OR PRIVATE SPACES

FACADES, FIREPLACES, HEATED FLOORS, RAISED FLOORS OR STAIRS

GARAGES, POOLS AND SPAS, COMMERCIAL SPACES AND ANY HIGH-TRAFFIC AREAS

Indoor Instalation

Before starting with the installation

- Substrates must be: dry and properly cured; flat and free of cracks; clean and free of dust, debris or lumps of cement; compact and strong.
- Place some tiles (at least 2 m²) over the flooring surface to check the final effect, making sure you have the right tile size, shade, and quality class.
- Avoid marking the front of the tiles with pencils or markers. Be particularly careful with glossy, matt or lapped tiles, which should be kept covered during building work.

Installation tools



SPIRIT LEVEL



RULER



NOTCHED TROWEL



TILE CUTTER



RUBBER MALLET



LEVELING PLIER



LEVELING CLIPS



GROUT TROWEL



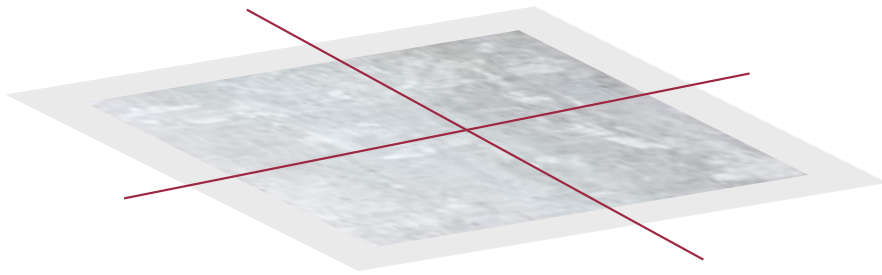
GROUT REMOVER

The cleaning after installation is of fundamental importance!

The cleaning must be carried out 2- 4 days after grouting (or according to the grout specifications) and within a maximum of 10 days after grouting.

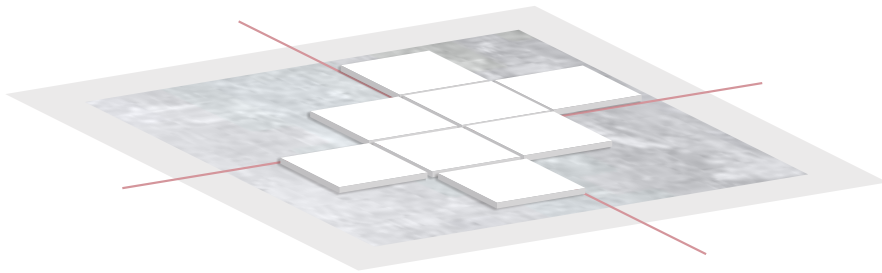
- First, remove any grease or similar substance from the floor using alkaline detergents.
- Proceed with the cleaning of the surface and rinse the floors with an abundance of water.

It is always recommended to carry out a test on a sample tile (not installed), in particular in case of satin matt surfaces, glossy surfaces or polished products.



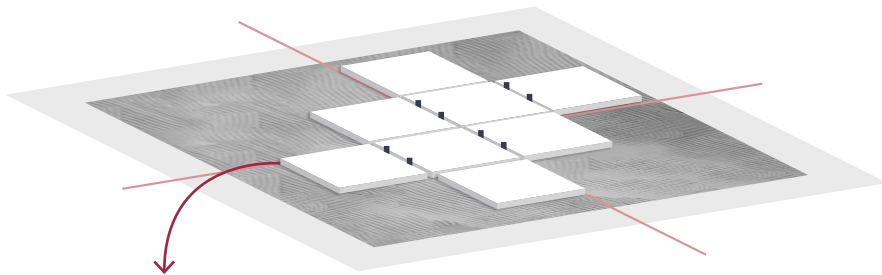
1.

Choose your installation pattern. Measure to find the center of a room on two opposite walls and use these points to snap a chalk line across the room. Do the same on the other walls to create perpendicular line, and check to make sure they are square.



2.

Dry fit your tile starting from center point, leaving enough spacing for grout joints. The goal is to work with as many full tiles as possible.



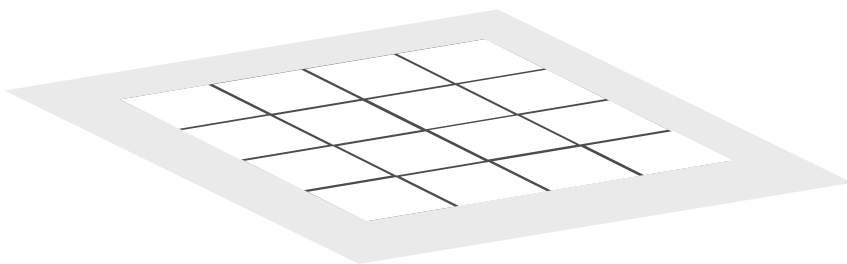
3.

Spread thin-set mortar with the notched edge of a trowel. As you lay your tile, you can use plastic spacers to help ensure you have straight grout lines. You will remove the spacers before the mortar dries. The "minimum grout line" installation determines a 2 mm joint on rectified materials.



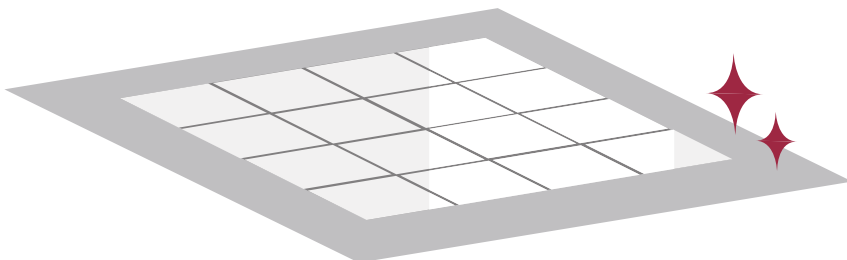
4.

Allow the tile to set and then grout the tile. The "minimum grout line" installation determines a 2 mm joint on rectified materials. Fill the grout lines with the grout, removing any residue from the grout lines. Grout small areas of the surface at a time and remove excess grout with a sponge or a wet cloth (with clean water).



5.

Clean the tile surface with a damp sponge and clean water. Wait 48/72 hours before walking over the newly laid tiles and proceed with the deep cleaning only after the grout is dry and seasoned.



Outdoor Instalation



1 Classical Setting

For classic installation with adhesive we recommend a joint of at least 5 mm, to facilitate the flow of water and eliminate substract tensions.



2 Gravel/Sand Setting

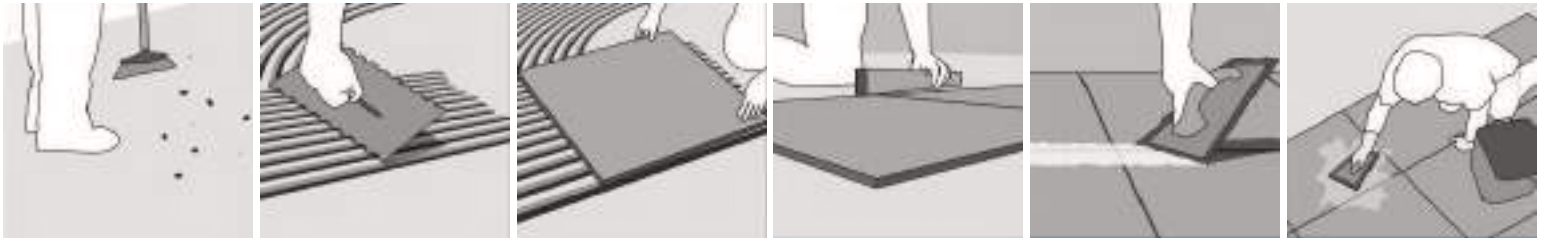
Installed on sand, grass lawn or gravel without adhesive - provides for easy and hassle-free dismantling and replacement.



3 Special Supports Setting

Tile setting on special-purpose supports , allows concealing the utility and communication systems under the floor and simultaneously makes them readily accessible.

For more details on this typology system please contact your sales representative.

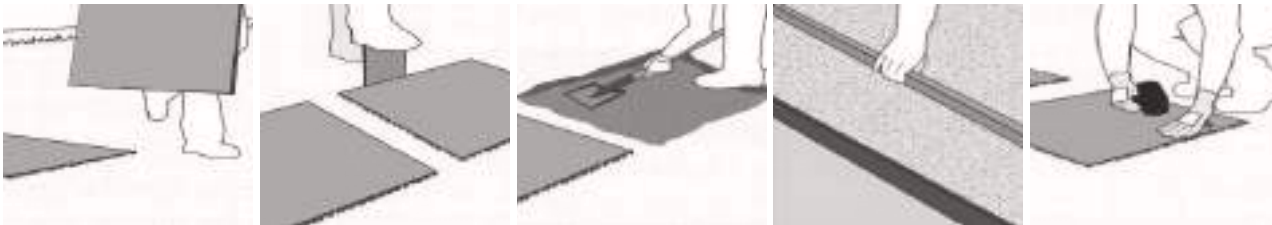


Clean the substrate thoroughly and apply an even layer of adhesive, to obtain a flat floor.

Make sure to use the correct tools, respect the joint recommended size and check the planarity of the flooring regularly during the laying operations.

Once the installation is finished grout the flooring. Remember to observe the times before walking on the tiles.

"Post-installation" cleaning is mandatory at the end of the work.



Form a stable and uniform substrate using fine gravel or sand. Level the substrate.

If installed in grass it is recommended to dig out about 5 cm from the soil.

Compact and level the substrate and then position the tile.

Lay the tile, so as to have an approximately 0.5 cm level difference, between the tile and the ground.

Position the tile and then knock the tile along the edges with a rubber hammer in order to level the tile with the substrate.

It is suggested to use joint of at least 5 mm to allow good water drainage.

This type of systems requires specific technical project and shouldn't be installed without consulting the system manufacturer and/or without supervision.

It is recommended to always refer to the specific norms and regulations and the instructions of the Project Supervisor.



maintenance

ROUTINE MAINTENANCE

It is recommended to clean the floor using a neutral detergent diluted in hot water. Avoid the use of acid, alkaline, waxing and/or impregnating products. During ordinary cleaning procedures, it is recommended to limit the use of abrasive means such as scouring pads, iron and/or steel sponges. Taking this precaution is a must on glossy tiles, as they are more liable to scratching. In case of intense dirt or textured surfaces, use an alkaline detergent, rinsing the floor with an abundance of water.

PRECAUTIONS

It is important to underline that certain types of dirt like dust or sand, increase the abrasive effect of foot traffic on the surface. The use of a door mat at the entrance can help prevent this.

Remove any spills of staining liquids (like coffee, tea, red wine), caustic substances (such as oven cleaner), acids and colorants as soon as possible and rinse with water.

Never use hydrofluoric acid-based detergents or its derivatives, such as rust-preventing products or spray stain-removers that often contain hydrofluoric acid.

PERSISTENT STAINS

Persistent stains can be removed with a slightly abrasive sponge; if necessary, use a specially formulated stain remover (see table).

TYPE OF STAINS	TYPE OF DETERGENT
MOSS	Neutral/acid (diluted bleach solution)
FRUIT/JUICES/ COFFEE	Basic detergent, cream or powder
SAUCES	Basic detergent, cream or powder
GREASE	Basic detergent, cream or powder/ baking soda mixed with water
MAKE-UP	Basic detergent, cream or powder/ diluted bleach solution
PERMANENT MARKERS/INK	Acetone
RESIN/PAINT	Solvent/ acetone



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